What is claimed is:

1. A flame retardant coating composition, comprising 10-50 wt% of a water-soluble resin, an acryl based resin or a urethane based resin, 10-30 wt% of a flame retarding agent, 8-20 wt% of a flame retarding aid, 30-45 wt% of a diluting agent, and 0.1-0.5 wt% of an additive, based on the whole wt% of the coating composition.

2. The coating composition as defined in claim 1, wherein the water-soluble resin comprises at least one synthetic resin selected from the group consisting of alkyd resin, acrylic resin, urethane resin, epoxyester resin or mixtures thereof.

3. The coating composition as defined in claim 1, wherein the acryl based resin comprises polyalkylmethacrylate, alkylmethacrylate-alkylacrylate copolymer or mixtures thereof.

4. The coating composition as defined in claim 1, wherein the urethane based resin comprises isocyanates, polyols or mixtures thereof.

5. The coating composition as defined in claim 1, wherein the flame retarding aid comprises antimony trioxide, antimony pentoxide, zinc borate, carbon black, boric acid, paraffin wax or mixtures thereof.

6. The coating composition as defined in claim 1, wherein the diluting agent comprises methylethylketone, toluene, isopropanol, ethylalcohol, methylalcohol or mixtures thereof.

7. A method of preparing a flame retardant product comprising the following steps of coating the flame retardant coating composition of any one of claims 1 to 6 on a substrate; and thermally treating the coated substrate at a temperature ranging from 80 to 150°C through heating and drying.

8. A substrate coated with the flame retardant coating composition of any one of claims 1 to 6.